IN THE SPECIFICATION:

Please amend the paragraphs at page 3, lines 8-24 to read:

~~This invention provides an amplifier system which provides an amplification of the signals from any one of a plurality of organs in a patient's body regardless of the organ to which the amplifier system is coupled. The amplifier system includes an amplifier which is operative to amplify the signals from any selected one of the organs in the patient's body without any loss in the signal strength and without any changes in the characteristics of the signals.~~

~~In accordance with a preferred embodiment of the invention, an electrode is attached at a selective position to a patent's body to provide signals representative of the patient's parameters (e.g., electrocardiogram) at this position. The electrode signal may be in the order of microvolts or millivolts. Depending upon the characteristics of the patient's skin, the electrode-skin impedances may vary to approximately 200 kilohms. The electrode signals pass to an amplifier having an input impedance (e.g., 10^{15} ohms) approaching infinity and a low output impedance (e.g. 50 ohms). The amplifier impedances ensure that the electrode signal will pass through the amplifier without loss in signal strength and change in signal characteristics. A low pass filter connected to the amplifier input eliminates noise and passes signals at low frequencies (e.g., 1 kilohertz maximum).~~

An electrode attached at a selective position to a patient's body provides signals representative of the patient's parameters (e.g., electrocardiogram) at that position. The electrode signal may be in microvolts or millivolts. Depending upon the characteristics of the patient's skin, the electrode impedance may vary to approximately 200 kilohms. The electrode signals pass to an amplifier having an input impedance (e.g., 10^{15} ohms) approaching infinity and a low output impedance (e.g., 50-75 ohms). The amplifier impedances insure that the electrode signal will pass through the amplifier without loss in signal strength and without change in signal characteristics. A second electrode

constituting a reference may be connected to a second amplifier corresponding to the first amplifier. Connected in a differential relationship, the amplifier eliminate noise resulting from patient movements, however extreme. A low pass filter differentially connected to the amplifier outputs eliminates noise and passes signals at low frequencies (e.g., 1 kilohertz). Another low pass filter may be differentially connected to the amplifier inputs.

Please amend the paragraph at page 6, lines 21-27 to read:

Since the amplifiers 16 and 18 have identical constructions, they operate to provide signals which represent the difference between the signals on the electrodes 12 and 14. This indicates the functioning of the patient's organ which is being determined by the amplifier system 10. Although the electrodes 12 and 14 are displaced from each other on the skin of the patient's body, they tend to receive the same noise signals. As a result, the difference between the signals on the output terminals of the amplifiers 16 and 18 does not include any noise. Noise can be considered to include signal variations resulting from movements of the patient. For example, running, walking and jumping movements of the patient produce noise.

Please amend the paragraph at page 7, lines 5-10 to read:

Because of the effective open circuit at the input of each of the amplifiers 16 and 18, the output signal from each of the amplifiers 16 and 18 corresponds to the input signal to the ~~amplifiers~~ amplifier and does not have any less magnitude compared to the amplitude of the input signal to the amplifier. This is important in view of the production of signals in the microvolt or millivolt region in the electrodes 12 and 14.

Please amend the paragraph at page 7, lines 11-19 to read:

The capacitors 24, 26 and 30 and the resistors 20 and 22 provide a low-pass filter and a differential circuit and operate to further eliminate [[the]] any noise on the electrodes 12 and 14. The capacitors 24, 26 and 30 also operate to provide signals which

eliminate the commonality between the signals in the electrodes 12 and 14 so that only the signals individual to the functionality being determined relative to the selected organ in the patient's body remain. The capacitors 24, 26 and 30 operate as a low pass filter and a differential circuit and pass signals in a range to approximately one kilohertz (1 KHz). The signals having a frequency above approximately one kilohertz (1 KHz) are ~~atentuated~~ attenuated.

Please amend the paragraph at page 8, lines 15-25 to read:

The transistors 52 and 64 operate on a differential basis to provide an input impedance of approximately 10^{15} ohms between the gates of the transistors. The output impedance from the amplifier 16 is approximately fifty (50) ohms to seventy-five (75) ohms. Because of the high input impedance of approximately 10^{15} ohms, the amplifier 16 provides an input impedance approaching infinity. This causes the amplifier 16 to provide the equivalent of an open circuit at its input. This causes substantially all of the voltage applied to the input terminal 50 to be provided at the output of the amplifier 16. This is facilitated by the low impedance of approximately fifty ohms (50 ohms) to seventy-five (75) ohms at the output of the amplifier 16. This voltage has characteristics corresponding to the characteristics of the voltage at the electrode 12. The high input impedance and the low output impedance of each of the amplifiers 16 and 18 cause noise to be eliminated in the amplifier such as results from movements of the patient while the signals are being produced by the amplifier. The differential relationship of the amplifiers 16 and 18 further causes noise to be eliminated at the output of the amplifier.

Please amend the paragraph at page 8, lines 26-30 to read:

The output signals from the amplifiers 16 and 18 are respectively introduced to the terminal common to the capacitors 24 and 26 and to the terminal common to the capacitors 26 and 30. The capacitors 24, 26 and 30 operate as a low-pass filter to further remove noise and to provide an output signal representing the difference between the signals on the electrodes 12 and 14.

Please amend the paragraph at page 9, lines 10-21 to read:

Figure 6 shows a preferred embodiment, generally indicated at 81, constituting a modification of the amplifier system 10 shown in Figure 1. It is identical to the amplifier system 10 shown in Figure 1 except that it includes capacitors 82, 84 and 86 respectively corresponding to the capacitors 24, 26 and 30 also shown in Figure 1. The capacitors 82, 84 and 86 are connected as a low pass filter at the inputs of the amplifiers 16 and 18. Like the capacitors 24, 26 and 30, the capacitors 82, 84 and 86 operate as a low pass filter. The addition of the capacitors 82, 84 and 86 provides certain advantages. For example, it assures that no noise passes through the amplifier system [[80]] 81. Furthermore, it assures that the amplifier system [[80]] 81 provides stable output signals even when the amplifier system is included in an ambulatory system for measuring the heart characteristics of a patient and even when the patient is undergoing strenuous movements such as running and jumping.